



## CLAIMS

What is claimed is:

1. A method for automated testing of a graphical user interface (GUI) of a program, said method comprising:

5                   creating a test file comprising a plurality of test steps in a text format; and  
                  executing a test harness with said test file as input to said test harness, said test harness configured to execute one of a plurality of automated tests in response to one of a plurality of test steps, each automated test configured to test a corresponding user interface element of said program through a GUI map, said GUI map configured to define a logical name for each user interface element of said program.

2. The method for automated testing of a GUI of a program according to claim 1, wherein each test step comprises an object, an action, and an identification reference.

3. The method for automated testing of a GUI of a program according to claim 2, wherein each test step further comprises an optional field value.

15                   4. The method for automated testing of a GUI of a program according to claim 3, wherein each test step further comprises an error recovery value.

5. The method for automated testing of a GUI of a program according to claim 1, further comprising:

20                   generating said GUI map of said program by extracting a logical name, a physical name, an identification, and an ordinal value for each user interface element of said program.

6. The method for automated testing of a GUI of a program according to claim 1, further comprising:

generating said GUI map of said program from one of a prototype of said program, a design document of said program and an earlier version of said program.

7. The method for automated testing of a GUI of a program according to claim 1, wherein:

each automated test is further configured to retrieve and to execute at least one of a plurality of associated reusable functions in response to said one of said plurality of test steps.

8. The method for automated testing of a GUI of a program according to claim 1, further comprising:

outputting results of the execution of said plurality of automated tests in response to said test file.

9. A system for automated testing of a graphical user interface (GUI) of an application, said system comprising:

at least one processor;

a memory coupled to said at least one processor;

a test harness residing in said memory and executed by said at least one processor, wherein said test harness is configured to execute one of a plurality of automated tests in response to one of a plurality of test steps of a data file, each automated test

configured to test a corresponding user interface element of said application through a GUI map, said GUI map configured to define a logical name for each user interface element of said application.

10. The system for automated testing of a GUI of an application according to  
5 claim 9, wherein each test step comprises an object, an action, and an identification reference.

11. The system for automated testing of a GUI of an application according to  
claim 10, wherein each test step further comprises an optional field value.

12. The system for automated testing of a GUI of an application according to  
claim 11, wherein each test step further comprises an error recovery value.

10 13. The system for automated testing of a GUI of an application according to  
claim 9, wherein said GUI map of said application is generated with a GUI analyzer  
configured to extract a logical name, a physical name, an identification and an ordinal value  
for each user interface element of said application.

14. The system for automated testing of a GUI of an application according to  
15 claim 9, wherein said GUI map of said application is generated from one of a prototype of  
said application, a design document of said application, and an earlier version of said  
application.

15 15. The system for automated testing of a GUI of an application according to  
claim 9, wherein each automated test is further configured to retrieve and to execute at least  
20 one of a plurality of associated reusable functions in response to said one of said plurality of  
test steps.

16. The system for automated testing of a GUI of an application according to claim 9, wherein said test harness is further configured to generate an output file configured to contain results of said execution of said plurality of automated tests in response to said test file.

5 17. A computer readable storage medium on which is embedded one or more computer programs, said one or more computer programs implementing a method for automated testing of a graphical user interface (GUI) of an application, said one or more computer programs comprising a set of instructions for:

creating a test file a plurality of test steps in a text format; and

10 executing a test harness with said test file as input to said test harness, said test harness configured to execute one of a plurality of automated tests in response to one of a plurality of test steps, each automated test configured to test a corresponding user interface element of said program through a GUI map, said GUI map configured to define a logical name for each user interface element of said program.

15 18. The computer readable storage medium in according to claim 17, said one or more computer programs further comprising a set of instructions for:

generating said GUI map of said program by extracting a logical name, a physical name, an identification, and an ordinal value for each physical element of said program.

20 19. The computer readable storage medium in according to claim 17, said one or more computer programs further comprising a set of instructions for:

outputting an output file configured to contain results of the execution of said plurality of automated tests in response to said test file.

**20.** The computer readable storage medium in according to claim 17, wherein said one or more computer programs further comprising a set of instructions for:

- 5       each automated test further configured to retrieve and to execute at least one of a plurality of associated reusable functions in response to said one of said plurality of test steps.